



## Tribology of a Combined Yaw Bearing and Brake

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*Publication date:*  
2013

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*Citation (APA):*  
Poulios, K. (Author). (2013). Tribology of a Combined Yaw Bearing and Brake. Sound/Visual production (digital)

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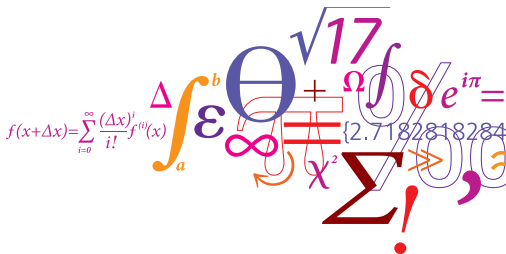
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# Tribology of a Combined Yaw Bearing and Brake

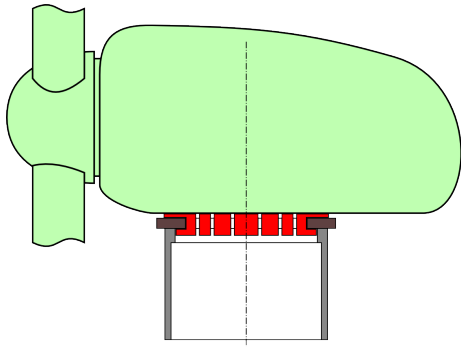
Konstantinos Poullos

Solid Mechanics



# Project Goals

Study of tribological aspects in a combined yaw bearing and brake system



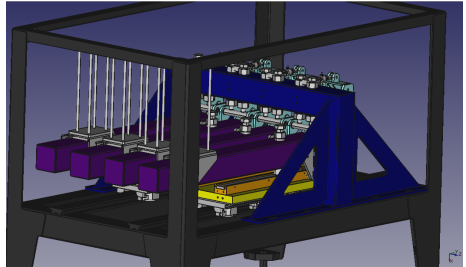
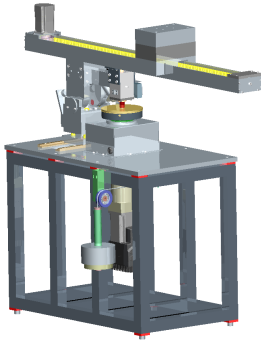
Project goals:

- Coefficient of friction
- Running-in
- Wear rate
- Noise generation

Tools - Methods:

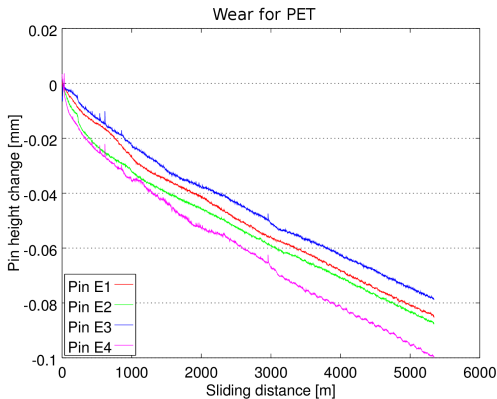
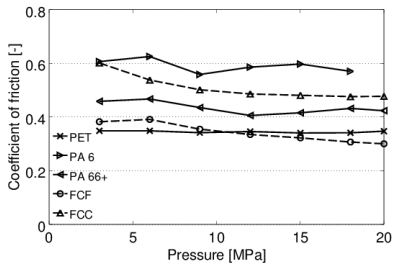
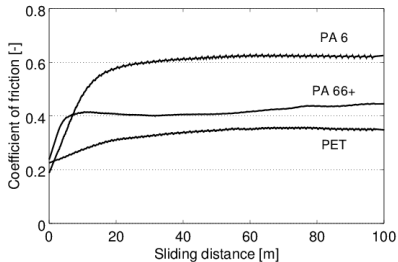
- Experimental testing  
(pin-on-disc, pin-on-plate)
- FEM modeling  
(contact mechanics)

# Experimental Testing

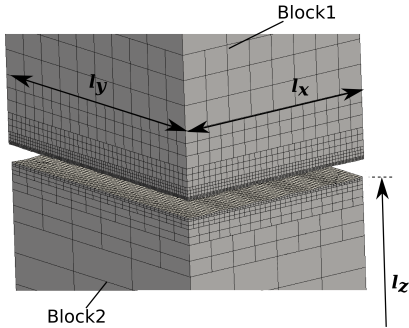


- Pin-on-disc and pin-on-plate test-rigs
- Friction, wear and break away testing at various pressure levels
- Fiber composites, thermoplastics, organic and sintered materials

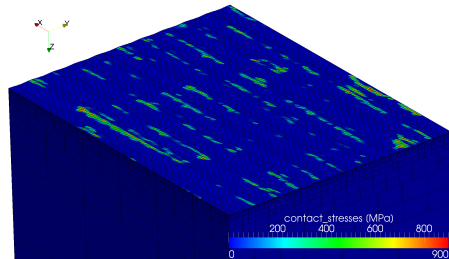
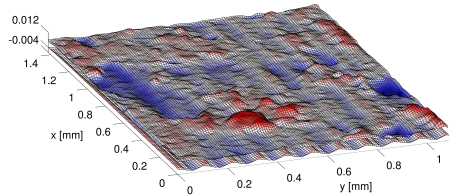
# Experimental Testing



# FEM Modeling - Micro-Contact



- Simulation of normal loading and sliding
- Measured surface topographies
- Calculation of real area of contact
- Material plasticity



# Thank you for your attention!

## Project members:



**SVENDBORG BRAKES**

